

COMPARISON OF COLOR MARKINGS OF *CICINDELA*
FORMOSA SAY AND *CICINDELA FORMOSA*
GENEROSA DEJ. (COLEOP.:
CICINDELIDAE.

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After studying over three hundred and fifty specimens of *Cicindela formosa* Say and *Cicindela formosa generosa* Dej. in the collection of the Department of Entomology of the University of Nebraska several conclusions are obvious and worthy of being recorded. The eastern form of *Cicindela formosa generosa* as found in New Jersey is more near the type of the sub-species. It is dull red cupreous in color. The middle band of the elytra is strongly deflexed and narrower than specimens found in Nebraska and Iowa. *Cicindela formosa* of Nebraska is of a lighter reddish or cupreous color and has a metallic lustre. Some are greenish red. Those from the extreme western part of Nebraska particularly show this light greenish-red hue. The middle cross band is almost straight to slightly deflexed and slightly bent obtusely. There are many variations in color and markings of the Nebraska species. Some are duller and darker in color and have strongly deflexed middle bands. These bands are wider than those from the extreme eastern part of the United States. In some the color is like *Cicindela formosa* and the middle band similar, although somewhat wider than in *Cicindela formosa generosa*. In others the color is like *Cicindela formosa generosa* and the middle band more like *Cicindela formosa*.

The series from Iowa is darker than the one from Nebraska and more like the eastern one in color. The middle band varies, however, as it does in *Cicindela formosa* in Nebraska. It seems, therefore, that *Cicindela formosa generosa* from the eastern part of the United States and *Cicindela formosa* from the mid-west have intergradations in the mid-west as found in Nebraska and Iowa. Those from Iowa more closely resemble the extreme eastern forms than do those from Nebraska.

Some specimens in our cabinet closely resemble *Cicindela formosa manitoba* Leng. In comparing *Cicindela formosa* from Nebraska with *Cicindela formosa manitoba* which were donated by Mr. W. Knaus we find that the color pattern is similar to that of the Manitoba sub-species. The white markings of the Nebraska sub-species are extremely broad so that almost one-half of the elytra are white. The color is dull bronze brown in both.